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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,018

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Kim Heglund

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EXAMINER

WALTERS, RYAN J

ART UNIT

PAPER NUMBER

3726

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,018	<b>Applicant(s)</b> HEGLUND ET AL.	
	<b>Examiner</b> RYAN J. WALTERS	<b>Art Unit</b> 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/30/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a **single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal **phraseology** often used in patent claims, such as "**means**" and "said," **should be avoided**. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. **The abstract of the disclosure is objected to because of the following reasons:**

- The abstract should only be ONE paragraph
- The word "means" should not be used (line 6)
- The last line "(Figure 3)" should be deleted.

Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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5. **Claim 1** recites the following limitations:

"the corner" in line 3

"the channel section" in line 6

"the rail section" in line 7

"the rollers" in line 10

There is insufficient antecedent basis for these limitations in the claim.

6. **Claim 1** recites the limitations "masts mainly based on extruded bodies" in line 1 and "by means interacting rail sections" in line 3. These limitations are unclear and should be reworded.

7. **Claim 2** recites the following limitations:

"the part" in line 1

"the length" in line 3

"the roller like tool" in line 6

"said two parts" in line 6

There is insufficient antecedent basis for these limitations in the claim.

8. **Claim 2** recites the limitation "the part....intended to be in engagement with the channel section" in line 3. This limitation is unclear because it is not clear whether the part will be in engagement with the channel section.

9. Regarding **claims 2-3, 6, 8 and 14-17**, the phrase "or similar" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or similar"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

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10. **Claims 3-4 and 8-10** recites the limitation "the roller like tool". There is insufficient antecedent basis for this limitation in the claim.

11. **Claims 4 and 9-10** recites the limitation "the other inner wall". There is insufficient antecedent basis for this limitation in the claim.

12. **Claims 5 and 13** recite the following limitations:

"the transition" line 2

"the at least one tapered wall" in line 2

"its inner surface" in line 3

There is insufficient antecedent basis for these limitations in the claim.

13. **Claims 7 and 18-22** recites the limitation "the element". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claims 1, 4-7, 13, 16-17 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heglund (WO 01/36750) in view of Hard (US 674,379).**

16. Re **Claim 1**, Heglund discloses a method for production of masts mainly based on extruded bodies and formed with a general cross section area which comprises at least three mast elements joined in the corner by means interacting rail sections and channel sections (Fig. 9B),

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wherein the channel section is provided with inwardly tapered inner wall sections, the rail section of one mast element is inserted into the channel section on an adjacent mast element; and a joint is obtained in longitudinal direction of and on the exterior of the channel section forming the corner (Fig. 9B; Page 7, lines 30-40).

Heglund does not disclose that the joint is obtained by a substantially continuous motion of a roller type tool in longitudinal direction of and on the exterior of the channel section, the rollers providing sufficient force to clamp the channel section and the rail section together, causing permanent deformation of the channel section around the rail section, forming the corner.

However, **Hard** teaches a joint is obtained by a substantially continuous motion of a roller type tool in longitudinal direction of and on the exterior of the channel section, the rollers providing sufficient force to clamp the channel section and the rail section together, causing permanent deformation of the channel section around the rail section, forming the corner (Figs. 1-4; Page 2, Col. 1, lines 20-63).

It would be obvious to one of ordinary skill in the art to obtain the joint by a substantially continuous motion of a roller type tool, as taught by Hard, for the purpose of firmly uniting the members by securely flanging them together to form a rigid construction (Page 2, Col. 1, lines 20-63).

17. Re **Claim 4**, Heglund discloses one inner wall of the channel sections is tapered with respect to the other inner wall in order to simplify insertion of the rail section into the channel section (Fig. 9B; Page 7, lines 30-40), whereupon the tapered wall on the

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channel section are forced against the rail section by means of the roller like tool (inherent from teaching by Hard in claim 1 rejection).

18. Re **Claims 5 and 13**, as best understood, Heglund discloses the transition between the at least one tapered wall of the channel section along its inner surface on the lower part of the wall is provided with an inner recess in order to secure a proper joint between the channel section and the rail section (Fig. 9B; Page 7, lines 30-40).

19. Re **Claims 6 and 16-17**, Heglund does not disclose that rollers on the roller tool are provided with knobs or similar in order to form spot strengthened areas.

However, **Hard** teaches that rollers on the roller tool are provided with knobs or similar in order to form spot strengthened areas (Figs. 1-4; Page 2, Col. 1, lines 52-63).

It would be obvious to one of ordinary skill in the art to have rollers provided with knobs or similar, as taught by Hard, for the purpose of firmly uniting the members by securely flanging them together to form a rigid construction and to indent the members to further secure the joint (Page 2, Col. 1, lines 20-63).

20. Re **Claims 7 and 21-22**, as best understood, Heglund discloses the element comprises a plurality of interconnected tubular profiles and interconnected with intermediate plates 9, the tubular profiles during the extrusion process or subsequent to the extrusion process being provided with intermittent slits on one or both side of the tubular profile, whereupon the element are stretched in lateral direction with respect to the longitudinal direction of the elements thereby forming a lattice element (Figs. 5-6).

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21. **Claims 2-3, 8-12, 14-15 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heglund (WO 01/36750) in view of Hard (US 674,379), as applied to Claim 1, in further view of Aida (US 3,861,339).**

22. Re **Claim 2, 3 and 8**, as best understood, Heglund/Hard discloses the roller like tool forces the walls of the channel section into gripping contact with the rail section (see rejection for claim 1). Heglund does not explicitly disclose that part of the rail section intended to be in engagement with the channel section on an adjacent mast element and at least one of the inner walls of the channel section is provided with teeth, ridges or rifles or similar at least along parts of the length of the mast elements, said teeth, ridges or rifles or similar being at least partly deformed in order to obtain a secure joint between the channel section and the rail section when the parts are clamped.

However, **Aida** teaches a similar joint connection where part of a rail section 16 intended to be in engagement with a channel section 20a on an adjacent mast element 20 and at least one of the inner walls of the channel section 20a is provided with teeth, ridges or rifles or similar 18, 22 at least along parts of the length of the mast elements, said teeth, ridges or rifles or similar 18, 22 being at least partly deformed in order to obtain a secure joint between the channel section and the rail section when the parts are clamped (Fig. 3; Col. 3, lines 8-25).

It would be obvious to one of ordinary skill in the art to have teeth on the rail and channel portions which deform when clamped, as taught by Aida, for the purpose of providing a tight lock joint between the members (Col. 3, line 22).



23. Re **Claims 9-10**, Heglund discloses one inner wall of the channel sections is tapered with respect to the other inner wall in order to simplify insertion of the rail section into the channel section (Fig. 9B; Page 7, lines 30-40), whereupon the tapered wall on the channel section are forced against the rail section by means of the roller like tool (inherent from teaching by Hard in claim 1 rejection).

24. Re **Claims 11-12**, Heglund discloses the transition between the at least one tapered wall of the channel section along its inner surface on the lower part of the wall is provided with an inner recess in order to secure a proper joint between the channel section and the rail section (Fig. 9B; Page 7, lines 30-40).

25. Re **Claims 14-15**, Heglund does not disclose that rollers on the roller tool are provided with knobs or similar in order to form spot strengthened areas.

However, **Hard** teaches that rollers on the roller tool are provided with knobs or similar in order to form spot strengthened areas (Figs. 1-4; Page 2, Col. 1, lines 52-63).

It would be obvious to one of ordinary skill in the art to have rollers provided with knobs or similar, as taught by Hard, for the purpose of firmly uniting the members by securely flanging them together to form a rigid construction and to indent the members to further secure the joint (Page 2, Col. 1, lines 20-63).

26. Re **Claims 18-19**, as best understood, Heglund discloses the element comprises a plurality of interconnected tubular profiles and interconnected with intermediate plates 9, the tubular profiles during the extrusion process or subsequent to the extrusion process being provided with intermittent slits on one or both side of the tubular profile,

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whereupon the element are stretched in lateral direction with respect to the longitudinal direction of the elements thereby forming a lattice element (Fig. 9B; Pages 7-8).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN J. WALTERS whose telephone number is (571)270-5429. The examiner can normally be reached on Monday-Friday, 9am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. J. W./  
Examiner, Art Unit 3726

/DAVID P. BRYANT/  
Supervisory Patent Examiner, Art Unit 3726